FIG.1

4 DISPLACEMENT CALCULATION CIRCUIT

5 MAGNETIC BEARING DRIVE CIRCUIT

6 INVERTER

7 COOLING FAN DRIVE CIRCUIT

1 MAGNETIC BEARING CONTROL DEVICE

2 PUMP MAIN BODY

21 PUMP MAIN BODY

9 SERIAL COMMUNICATION BOARD

10 DISPLAY PORTION

11 VOICE OUTPUT PORTION

14 COUNTER

16 MEMORY

22 DISPLACEMENT DETECTION CIRCUIT

23 MAGNETIC BEARING

24 MOTOR

25 REVOLUTION NUMBER SENSOR

START

S1

IS POWER ON? — NO

YES

S2

COUNT THE ENERGIZATION TIME
AND NOTIFY THE ACCUMULATED
ACTUAL WORK TIME.

S3

HAS THE ACCUMULATED
ACTUAL WORK TIME ELAPSED
OR EXCEEDED THE
MAINTENANCE TIME OR THE
LIMIT TIME?

NO

LIMIT TIME
EXCEEDED

MAINTENANCE
TIME EXCEEDED

S4

OUTPUT AN ALARM SIGNAL TO
DISPLAY PORTION 10 AND VOICE
OUTPUT PORTION 11 TO PROMPT
THE START OF MAINTENANCE
OPERATION.

S5

INHIBIT THE ACTIVATION OF CONTROL
DEVICE AND THE DRIVE OF PUMP MAIN
BODY 2, AND OUTPUT A FAILURE SIGNAL
TO DISPLAY PORTION 10 AND VOICE
OUTPUT PORTION 11.

END

FIG. 2